CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

29/30 JANUARY 2004

ITEM: 5

SUBJECT: Executive Officer's Report

DISCUSSION:

GROUNDWATER POLLUTION

1. City of Lodi, San Joaquin County

The City of Lodi relies on groundwater for its drinking water, and in the late 1980's, perchloroethylene (PCE) and trichloroethylene (TCE) contamination was discovered in several drinking water supply wells. In the early 1990's, investigations conducted by the Regional Board under the Well Investigation Program revealed numerous discrete areas where TCE was disposed of or where PCE from dry cleaning operations was disposed to the sewer system or directly to the ground. Staff believes that this PCE leaked from the sewer to the soil and groundwater. Of particular note is an area where sewer sags and leaks downgradient of Guild Cleaners and others have resulted in soil and groundwater contamination levels so high that large amounts of pure liquid phase PCE remain in the soil and groundwater. The groundwater pollution extends downgradient over 3,000 feet and has migrated downward to over 150 feet below ground surface. The contamination impacted a municipal supply well which had to be abandoned. This highly polluted area is referred to as the "Central Area".

In 1997, the Department of Toxic Substances Control (DTSC) and the City of Lodi entered into a "Cooperative Agreement" whereby Lodi assumed a lead role in the cleanup and agreed to pursue legal action against potentially responsible parties (PRPs) to enforce cleanup and to recover the City's legal costs. Lodi's strategy was to achieve a result whereby the other PRPs would pay for 100% of the cleanup, as well as pay for the City's litigation costs and attorney's fees. The City also intended to compel the PRPs' insurance carriers into funding the cleanup. Lodi also agreed that if it were not successful in compelling PRPs to undertake remedial work within 24 months of the Cooperative Agreement, the City would perform investigations and install and operate a "downgradient containment and remediation system". For its part, DTSC received \$1 million, provided a covenant not to sue the City with regards to releases from the sewer system, included a clause intended to provide the City with protection from contribution actions, and agreed to provide technical support. The Regional Board did not participate in the Agreement.

In 2000, the City initiated legal action in federal court against a number of PRPs. The City also began investigations of the extent of contamination and produced a Phase 1 report in September 2001. Due to the discovery of liquid phase PCE in the Central Area, the scope of remedial work for groundwater described in the Cooperative Agreement is technically no longer appropriate and needs to be updated. To date, this has not been done.

In October of 2001, Guild Cleaners (one of the PRPs) requested Regional Board oversight for the performance of a Remedial Investigation and Feasibility Study (RIFS) for its area of contamination. Due to a number of legal and practical concerns, Guild was unwilling to cooperate with the City or DTSC in the effort. The Regional Board, in consultation with DTSC, undertook the requested oversight and Guild has nearly completed its investigations. With Regional Board oversight Guild also constructed a pilot-scale soil vapor extraction (SVE) system and extracted over 4,000 pounds of pure phase PCE in the course of a six-week pilot scale study conducted in 2003. Guild is currently pilot testing the feasibility of shallow groundwater remediation by a combination of air-sparging and SVE.

Regional Board staff has also requested that the City of Lodi perform upgrades to the leaking, sagging sewer line in the area of the pure phase liquid PCE release near Guild Cleaners. As a result the City has recently slipped-lined that section of the sewer.

Two additional PRPs in the City of Lodi have since requested Regional Board oversight for the performance of investigations and remediation at their sites. At the Holz Rubber Company Site, investigations have been completed and additional pilottesting of ozone sparging has been proposed. At the Busy Bee Cleaners Site, several rounds of investigations have been completed and further investigations are underway.

DTSC and the Regional Board have entered into an informal agreement where the Regional Board is to be the lead agency for the Holz and Busy Bee Sites, DTSC is to be the lead agency for two other source areas (the "Western Area" and the Northern Area") and the agencies have signed an MOU outlining their oversight roles for the heavily contaminated Central Area.

The trial and appellate courts have issued several important pre-trial rulings that are adverse to the City and its approach to the PRPs. These include a denial of the City's request for a preliminary injunction requiring other PRPs to undertake cleanup, an appellate court dismissal of the City's appeal of that ruling, and a trial court ruling that the City cannot enact a city ordinance that would have provided it with damages in excess of what the City could recover under CERCLA (the Comprehensive Environmental Response, Compensation and Liability Act, aka "Superfund").

Although DTSC and the Regional Board are not parties to the federal litigation, both agencies are represented by the Attorney General (AG) and are monitoring the litigation to avoid having a court decision impact the agencies' regulatory jurisdiction. Regional Board staff and DTSC have given numerous depositions in the case. The first phase of the trial commences on January 14, and staff has received subpoenas to testify. The first phase of the trial is limited to whether the City, an admitted PRP for the sewer discharges, has any defenses to its liability under CERCLA. Future phases of the trial will address whether the City can recover damages and/or obtain injunctive relief ordering other PRPs to undertake cleanup, and the relative liability of the various PRPs.

The City and the other PRPs have conducted numerous court-ordered settlement discussions. The Regional Board and DTSC participated in some of those discussions at the request of the court mediator and/or the parties. At this point, Regional Board staff cannot predict whether the discussions will lead to any settlements, or when.

At this time staff believes that cleanup can be achieved in the Holz and Busy Bee Areas under Regional Board oversight. The contamination in these areas is more limited in scope than at the Central area, and the PRPs have made significant progress investigating the sites. The dischargers have indicated that sufficient funding is available to complete the cleanup. DTSC is pursuing cleanup orders for sites in the Northern and Western Areas. In the Central Area significant PCE is being removed by operation of the SVE – air sparging pilot system. Implementation of additional remedial systems may depend on a settlement being reached. (AKV)

2. Skyway Homes Subdivision, Chico, Butte County

At the request of homeowners, Redding staff with assistance of staff from the Butte County Environmental Health Department, sampled 40 individual domestic wells on Skyway and Cessna Avenues (the Skyway Homes Subdivision) to investigate the extent of petroleum pollution from the Kinder Morgan Chico Terminal. The laboratory did not detect fuel oxygenates or gasoline aromatics, but instead found trichloroethene (TCE) and tetrachloroethene (PCE) above the Public Health Goals in 26 wells. Nine wells contained TCE concentrations above the Primary MCL. Upon receiving laboratory results, Redding staff contacted well owners and sent a Prop 65 notice to Butte County. Staff will continue to work with Butte County and other regulatory agencies to determine the source of contamination, conduct additional sampling, and obtain resources to supply alternative water to affected homeowners. (EJR)

3. City of Dinuba, Tulare County

The City of Dinuba proposes to place deep wells downgradient of the percolation ponds at its wastewater treatment facility to supply a planned driving range and eighteen-hole golf course. Monitoring wells indicate that groundwater has been degraded, in some cases polluted, by nitrate. Unfortunately, the City proposes this as an ongoing treatment and control strategy as opposed to cleanup of the aquifer. Groundwater recharge through the unlined percolation ponds must result in groundwater that complies with policies and regulations. (JRL)

CONTRACTS AND GRANTS

4. Grant Funding Related to Agriculture

The State Board is continuing its scoping process to develop criteria and guidelines for the best use of \$20-million in grant funding that will become available after July 2005, to address agriculturally related water quality issues. Region 5 staff is working with staff from the State Board, DPR, UCD, DFA, and other Regional Boards to recommend draft criteria for the upcoming request for proposal. The draft criteria will then go through a public review process, including State Board approval, prior to being released. Current anticipated release of the draft criteria is late spring/summer 2004. Anticipated release of the request for proposal is late summer/fall 2004. (JEC)

MONITORING

5. Pesticide Surface Water and Rainwater Monitoring

The Regional Board has contracted with UC Davis to collect 535 surface water samples at 23 sites within the Sacramento and San Joaquin Valleys and Sacramento-San Joaquin Delta, during the orchard dormant spray season (January and February). Irrigation season monitoring will also be conducted in the Delta and San Joaquin. The data will support pesticide TMDL development and implementation efforts in the Central Valley. Additionally, Regional Board staff will collect 15 rain samples at two rain monitoring sites in Lincoln and Stockton. The California Department of Food and Agriculture Lab in Sacramento will analyze all samples for pesticides including diazinon, chlorpyrifos, pyrethroids, and commonly used herbicides. Planning for this large monitoring effort began in July 2003 and has involved collaboration between staff in two TMDL units and the ag waiver unit. (CS)

6. Mercury Water Monitoring

Regional Board staff is continuing to conduct surface water and storm water monitoring in support of Central Valley mercury TMDLs. Current monitoring efforts include 20 sites in the Cache Creek watershed, including numerous monitoring stations at and downstream of the mercury mines in the Harley Gulch and Sulphur Creek watersheds. Monitoring for the Delta mercury TMDL includes seven sites for urban storm water runoff, seven agricultural drains locations, and rivers tributary to the Delta. Periodic mercury sampling is also conducted at 27 locations in the Sacramento and San Joaquin Rivers. All water samples are analyzed for mercury, methylmercury, and suspended solids. (PWM)

7. Inaccurate Cyanide Results, Shasta County

In 2001, Basic Laboratory in Redding developed a low-level cyanide method to meet the CTR Criterion for Freshwater Aquatic Life Protection of $5.2~\mu g/L$ and the SIP minimum level of $5.0~\mu g/L$. The laboratory's method detection limit for the method is $2~\mu g/L$. Recent results submitted by an NPDES discharger undergoing permit renewal contained cyanide at concentrations exceeding the CTR criterion. Prior to placing interim cyanide limits in the discharger's Tentative Waste Discharge Requirements, staff met with lab management and presented concerns regarding their analytical accuracy. Following the meeting, Basic Lab discovered an error in their computer program that is used in deriving the cyanide concentration. This computer error resulted in the laboratory reporting cyanide concentrations approximately 6.25 times higher than the actual concentrations; however, in a few cases the results were even higher. Based on this information, effluent limitations for cyanide were not placed in the NPDES permit. As a result of their investigation Basic Laboratory has added a full time Quality Assurance Officer, notified 36 clients of the error, and provided the corrected cyanide results to Redding staff. (KLC)

WATER QUALITY CONTROL PLANS

8. Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary

On 8 January, staff attended a State Water Board workshop regarding review of the 1995 Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary (1995 Plan). The purpose of the workshop was to solicit comments from the public regarding the periodic review of the 1995 Plan. The Regional Board has responsibility for developing control programs to implement a number of the objectives outlined in the 1995 Plan, including dissolved oxygen and salinity objectives in the San Joaquin River (SJR). The Regional Board was also directed by the State Water Board in Water Rights Decision 1641, the decision that implemented the 1995 Plan, to take certain actions. These actions include development and adoption of salinity objectives, along with a program of implementation for the main stem of the SJR upstream of Vernalis.

Approximately 15 people, representing water districts, state, and federal agencies, and environmental organizations provided comments at the workshop. A number of these comments had bearing on Regional Board TMDL projects and other water quality programs. In particular, there were stated concerns regarding:

- lack of progress of the Regional Board to adopt salinity water quality objectives for the SJR upstream of Vernalis; it was recommended that the State Water Board consider adopting such objectives
- approach used for the proposed salinity TMDL; the approach is flawed because: 1) no objectives were considered upstream of Vernalis and 2) it proposes limits for east side discharges
- need for minimum flow requirements and barrier operations in the South Delta to help solve the dissolved oxygen problem in the SJR near Stockton
- lack of coordination between State Water Board and Regional Board staff to develop water quality programs that consider both water rights and water quality; this results in piecemeal approach to solving water quality problems

Interested parties may submit written comments to the State Water Board by 5 February. Another State Water Board workshop will be held in May after State Water Board Staff has reviewed and responded to comments (LFG)

BAY-DELTA ACTIVITIES

9. CALFED Contracts Delays

There are three contracts that are currently being processed that would provide significant resources (staff time and contract funds) for our Region to work on three high priority projects: dissolved oxygen in the Stockton Deep Water Ship Channel, mercury loads and cycling in the Delta, and mercury mine abatement studies. We had expected that all these contracts would be in place by the start of 2004 and our current budget projections for this year and next are dependent on these contracts being in place. All three contracts are now hung up in processing and we are not sure if any of them will be in place this fiscal year. The contracts are funded from Proposition 13. In order for these contracts to be executed two things need to take place: 1) CALFED needs to get exemptions from the Department of General Services to the Governor's contract freeze order and CALFED needs to negotiate an interagency agreement with DWR. DWR received the Proposition 13 funds and the interagency agreement is needed to transfer funds to CALFED so they can, in turn, contract with the Regional Board. CALFED staff is working on the exemptions and the interagency agreement. However, they now estimate that it could take at least two months for exemptions to be processed and there is no certain date when the interagency agreement might be signed. We will need to work with State Board and management of CALFED to see if we can expedite processing of these contracts. (JAB)

10. Water Quality Impacts of Proposed Changes to Central Valley Water Operations

On 18 December 2003, at the invitation of the California Bay-Delta Authority, staff attended a regular meeting of the Integrated Water Operations Forum & Framework (IWOFF) at which various state and federal agencies with responsibility for water operations in the Central Valley coordinate their activities. State Senate Bill No. 2, proposed by Senator Michael Machado (D-Linden), will require these water operation agencies to address numerous water quality issues in the San Joaquin River and Delta before there can be any increases in the amount of water pumped from the Delta. Staff was invited to provide input to IWOFF agencies on how these various water quality issues in the San Joaquin River and Delta need to be addressed by the planning processes for a number of water operations projects being proposed by IWOFF agencies. Staff agreed to co-chair a workgroup of the IWOFF that will help those agencies develop a strategy to address these water quality issues. The role of staff will be advisory only. (MG)

TMDL PROGRAM

11. San Joaquin River Dissolved Oxygen TMDL CEQA Scoping Meeting

On 10 December 2003 staff held a CEQA scoping meeting and public workshop to discuss the development of an amendment to the Basin Plan for a TMDL and program of implementation addressing the low dissolved oxygen impairment in the San Joaquin River, Stockton Deep Water Ship Channel. This scoping meeting and workshop provided participants with: 1) an opportunity to comment on the appropriate scope and content of the CEQA functionally equivalent environmental document; 2) an opportunity to comment on the scope of the proposed amendment to the Basin Plan; 3) an overview of the current development of the Basin Plan Amendment and staff report. Public comments received at the meeting focused on the need to address the impact of reduced flow through the Stockton Deep Water Ship Channel, the need for the Basin Plan to define specific regulatory actions, the need to modify the Basin Plan dissolved oxygen objectives, and the importance of establishing an equitable baseline. Staff will consider these and other public comments received throughout the Basin Plan amendment process. (MG)

CEQA REPORTING

12. Port of Stockton, Proposed West Complex Development Project, San Joaquin County

The Port of Stockton (Port) has proposed a phased project to redevelop the former U.S. Naval base situated on Rough and Ready Island into an industrial, commercial and maritime facility. The Port now refers to this area as the West Complex Project. In order to allow commercial shipping access to the West Complex docks, the proposed project would deepen the draft by approximately six feet along the docks and also outward from the docks to the ship channel. The proposal would double the developed area on the island.

The Port of Stockton is the CEQA lead agency for the project and has released a draft Environmental Impact Report for public comments and review. Staff has identified the following water quality issues associated with the project:

- water quality impacts from dredging operations and upland dredge disposal
 - decreased dissolved oxygen in the ship channel

- potential toxicity of exposed river bottom
- potential groundwater impacts at dredge placement site
- water quality problems if decant water is discharged
- quality and quantity of storm water runoff
- increase loading to City of Stockton POTW
- impacts from increased ship traffic

Staff is reviewing the draft EIR and will provide comments on the proposed project and mitigation measures for water quality protection. The public comment period for CEQA document ends 20 January 2004. (ASB)

13. Frazier Park Estates Draft Environmental Impact Report, Kern County

The Frazier Park Estates is a proposed subdivision of approximately 140 multifamily units and commercial uses on 38 acres; and 734 single family residences, open space, drainage facilities, a wastewater treatment facility, wells, tanks and related infrastructure on approximately 800 acres. The wastewater treatment facility for the subdivision would be a tertiary package plant with discharge to landscape and open space areas. Frazier Park Travel Plaza is a nearby fifteen-acre truck stop with a 35,000 gallons per day discharge to septic tanks and leach fields. Several other businesses and homes in the area are on septic tank/leach field systems.

Staff commented that wastewater from the Frazier Park Travel Plaza and other nearby homes and businesses should be combined with wastewater from the proposed subdivision and treated at a single wastewater treatment facility. The EIR needs to include an analysis of establishing such a regional wastewater treatment facility. (JRL)

14. Proposed Penn Valley Oaks Residential Development, Nevada County

On 31 December 2003, staff provided comments on the Land Use Permit Application and Preliminary Wastewater Disposal Field Design Report for the Penn Valley Oaks Residential Development. The proposed development will consist of 49 residential lots and eight commercial parcels with an off-site sewage disposal system for 40 of the residential units, and the installation of a sewage disposal pipeline in the flood plain of Squirrel Creek. Staff indicated that the proposed wastewater system comes under the jurisdiction of the Regional Board and the property owner(s) will need to submit a Report of Waste Discharge at least 120 days prior to any discharge of wastewater to land. In addition, staff indicated that the County's environmental document should include an analysis of potential water quality impacts to the groundwater and surface water from the proposed disposal system, including pipeline breaks and sewage overflows, and describe how the project would comply with the NPDES General Permit for discharges of stormwater associated with construction activities as well as how the project would comply with water quality certification requirements for development activities that may impact jurisdictional wetlands. (GJC)

15. Capay Hills Golf Club, Yolo County

On 14 November 2003, staff provided comments on the Notice of Preparation for the Capay Hills Golf Club in Yolo County. The proposed project involves development of a new golf course that will be irrigated with reclaimed water from the Rumsey Rancheria Indian casino wastewater treatment plant. Staff concurred that an EIR is appropriate and recommended that the EIR carefully analyze potential groundwater quality impacts. Staff also stated that the developer would be required to submit a Report of Waste Discharge. (ALO)

16. Yia C. Vang, Slaughterhouse, Sacramento County

On 18 December 2003, staff provided comments on a proposed Conditional Use Permit for a small slaughterhouse in southern Sacramento County. The slaughterhouse will be used for religious ceremonies of the Southeast Asian community. Staff requested additional information about the proposed operation and the associated wastewater handling system to determine whether waste discharge requirements are appropriate. (ALO)

17. City of Woodland, Wastewater Treatment Plant Expansion, Yolo County

The City of Woodland issued a Draft Mitigated Negative Declaration for a significant hydraulic expansion of their wastewater treatment plant. Staff commented that (1) the proposed expansion would have significant, unmitigated impacts as proposed as the expanded facility was not designed to achieve compliance with waste discharge requirements and (2) a mitigated negative declaration appeared to be inappropriate for this project. (RPM)

WATERSHED ACTIVITIES

18. Houseboat Graywater, Shasta Lake, Shasta County

The U.S. Department of Agriculture, Forest Service (USFS) has submitted another draft MOU to eliminate graywater discharges from houseboats to Shasta Lake. This draft MOU incorporates their new format and comments received from the USFS' Regional and Washington offices. Board staff and counsel have reviewed the draft MOU and minor changes have been requested. It appears that a mutually acceptable MOU will be signed by the end of January foregoing the need to issue a CAO to the USFS. (KLC)

19. Runoff and Recycled Wastewater

On 9 December 2003 two meetings were held regarding the runoff of tertiary wastewater from irrigation reuse sites, such as golf courses. In the morning SWRCB staff held a workshop to discuss runoff issues, including potential impacts on water quality, and whether or not NPDES Permits are needed to regulate the runoff. This is highly controversial issue in Region 5 where most WDRs/Reclamation Permits for irrigation reuse sites prohibit runoff and violations of the prohibition are occurring. The workshop is an outgrowth of the California Recycled Water Task Force that examined a wide range of issues impacting recycled water use in the State. SWRCB staff will develop recommendations for regulation of recycled water runoff over the next few months. In the afternoon, Celeste Cantu, Tom Howard and Ken Landau met with Assemblyman Tim Leslie and representatives of the City of Roseville regarding runoff of recycled water from golf courses irrigated with Roseville wastewater. Irrigation/landscape ponds on the golf courses containing recycled water overflow to creeks during rainstorms in violation of its reclamation permit. Roseville had modified its irrigation practices, but Regional Board staff still believed that an NPDES Permit was needed. As the result of the meeting, Tom Howard contacted USEPA and obtained approval of Roseville's operation strategy on an interim basis until an SWRCB policy is developed. (KDL)

ENFORCEMENT

20. City of Chico, Humboldt Road Burn Dump, Butte County

At its 2 December 2003 meeting, the Chico City Council approved a motion and directed their staff to proceed with the Remedial Action Plan (RAP) for cleanup of the Humboldt Road Burn Dump (HRBD). The RAP, and associated Environmental Impact Report (EIR), will address all areas of the HRBD that contain hazardous materials and other waste. The primary remedial approach selected by the Council is to use a cap-in-place approach to the extent possible and minimize the movement of waste material. The cleanup would proceed in three steps: cleanup of three parcels owned or previously operated by the City, cleanup of Dead Horse Slough, and cap the remaining waste in-place on the other private properties. City participation in steps two and three are contingent on: negotiation of cost-sharing arrangements with all other responsible parties, determination whether insurance coverage is available, indemnification of the City by private property owners, and the City contributing to cleanup costs for the private properties only to the extent they are found responsible. Instead of agreeing with the City's conditions, private properties owners may decide to submit their own RAPs and pursue individual cleanup. The City intends to begin preparation of the RAP and EIR next month. (KLC)

WASTE DISCHARGES TO LAND

21. Roll-In Mobilehome Park, Tuolumne County

All the components of the package WWTF and the subsurface effluent irrigation systems are in place and the piping connections and electrical system are being completed. Ownership of the mobile home park changed in late November, and the previous owner is under contractual agreement to complete the new WWTF and effluent disposal system, decommission the existing wastewater treatment ponds, and comply with the cease and desist order. (HA)

22. ConAgra Grocery Products, Oakdale Facility, Stanislaus County

By 20 November and 12 December 2003 letters, staff deemed ConAgra's erosion control program and lysimeter completion work plans complete. On 12 December 2003, the Discharger was issued a revised Monitoring and Reporting Program, which increases monitoring of the discharge, surface water, soil, soil-pore liquid, and groundwater to adequately characterize the discharge and to further assess its potential adverse impacts on water quality. After several iterations and meetings with ConAgra representatives, it also submitted a final revised long term storage plan intended to ensure adequate winter storage. The final revised plan incorporates of soil moisture lysimeter stations to ensure the soils are not saturated prior to wastewater application and is undergoing review. (ARP)

23. Madera County Service Area 22A Oakhurst, Madera County

The Discharger's WWTF serves the commercial core of unincorporated community of Oakhurst. The WWTF is under a CDO. The Discharger has not expanded the WWTF as directed by the CDO, citing funding difficulties. In early December, voters within the WWTF service area approved an \$8.6 million bond measure for a WWTF expansion project, which includes new headworks, oxidation ditch, effluent pumping station, two new clarifiers, chlorine contact tank, septage receiving station, sludge drying facility, and laboratory. Project bids were opened on 11 December. Construction will begin February 2004. (JKW)

24. Wineries, Summary of Recent Activities

During the last year, staff has been involved in several different areas regarding the regulation of winery wastewater. During the crush of 2002, the Wine Institute undertook a field study to determine current best management practices for the application of winery wastewater to fallow ground (ie, spreading basins). A draft report was received in May 2003, and staff attended the Wine Institute's "roll-out" of the study. Staff subsequently met with the Wine Institute and their consultants to offer comments; written comments were then transmitted on 21 December 2003. To briefly summarize, the study clearly showed that the application of winery wastewater, at the loading rates evaluated, resulted in overloading of the soil and the creation of leachate containing elevated levels of volatile dissolved solids, inorganic dissolved solids, and nitrogen. These constituents were present at concentrations that could pollute the underlying groundwater. The Wine Institute indicated that they would conduct follow-up studies during the 2004 crush season.

A number of the larger wineries within the Central Valley are regulated by individual WDRs and are required to conduct groundwater monitoring. As part of our standard review of monitoring reports, staff has identified a number of wineries that appear to have degraded or polluted the groundwater. These wineries have been requested to further investigate the extent of degradation and/or to implement management changes to comply with State Board Resolution No. 68-16 (the Anti-Degradation Policy).

Staff continues to enroll wineries under Resolution No. R5-2003-0106, the Waiver of WDRs for Small Food Processors, Including Wineries. This waiver applies to small wineries that either tank and haul their waste or apply the waste to cropland at agronomic rates. Over 20 wineries have voluntarily submitted RWDs and have been enrolled to date.

Staff continues to evaluate the most efficient method to regulate the remaining unregulated wineries. Due to the variety of methods of wastewater storage, treatment, and disposal, staff may be unable to prepare a General Order that would cover a majority of the industry. In addition, the existing waiver Resolution may apply to a large number of the approximately 300 unregulated wineries. Staff proposes to send out a questionnaire shortly in an attempt to define the sizes and waste management practices of the unregulated wineries. Based on the information received, staff then will determine the next regulatory steps. (WSW)

25. California Department of Corrections, Delano II State Prison, Delano, Kern County

The California Department of Corrections (CDC) is constructing the Delano II State Prison west of Delano in Kern County. CDC designed the prison to house a total of 5,080 minimum and maximum-security male inmates. An 8 April 2003 RWD was incomplete because it lacked a proposed designated disposal area. The CDC is in the process of purchasing 240 acres of land on which to reclaim the treated wastewater. While the CDC plans to complete construction of the wastewater treatment facility in upcoming months, it is indefinitely delaying the housing of inmates at Delano II. In the interim, two temporary separate septic systems regulated by Kern County exist on site to service administrative and construction staff. (JRL)

26. Western Milling Ethanol Plant, Tulare County

Western Milling LLC will produce 25 to 30 million gallons per year of dry ethanol in Goshen for blending with gasoline and 325,000 tons of wet distillers grains for cattle feed. Water from an onsite well will supply the boiler, cooling tower and process makeup water. Preconditioning of this water with food grade chemicals will be investigated for incorporating wastewater streams from cooling tower blowdown and boiler blowdown, into the animal feed, eliminating wastewater streams high in minerals. If the elimination of effluent high in minerals is not feasible by incorporation into animal feed, Western Milling intends to discharge to the sanitary sewer, which ends up at the Visalia WWTF. (JEB)

SPILLS

27. TravelCenters of America Truck Stop, 3524 South Highway 99 West, Corning, Tehama County

On 29 December 2003, a private party contacted an environmental consultant working for TravelCenters to complain of diesel fuel in a surface drainage adjacent to their house. The consultant, in turn, contacted Redding staff and the Tehama County Environmental Health Department. Staff's follow-up site inspection found Travel Centers discharged approximately

500 gallons of diesel fuel from their underground storage tank system into an unnamed tributary of Burch Creek and failed to contact the Office of Emergency Services to report the spill. Apparently, a buried water pipe ruptured next to a diesel pipe, causing the release. Truck stop employees saw water jetting from an overlying pavement seam; they excavated and found a fuel leak. Fuel ran over pavement toward a storm drain and employees failed to contain the spill. Board staff sampled the tributary and the private party's domestic well, and requested assistance from the California Department of Fish and Game who have ordered cleanup of the creek. (EJR)

28. Pacific Pride Cardlock AST Facility, Highway 299 East and Mountain View Road, Burney, Shasta County
On 1 January 2004, approximately 170 gallons of unleaded gasoline was released from a damaged dispenser at a cardlock fueling facility that was unmanned due to the holiday. Local fire, sheriff, and CHP responded to the incident. Most of the spilled fuel entered a three compartment oil/water separator that discharges directly to the community storm drain leading to surface waters. Shasta County Environmental Health Division staff requested Redding staff assume lead agency responsibility for the spill. On 6 January 2004, staff assessed impacts from the spill and took samples of liquids being discharged from the third compartment of the oil/water separator. Staff will follow-up as appropriate. (DPS)

29. Weimar Institute, Placer County

On 16 December 2003, staff was notified by the Weimar Institute of a spill of 65,000 gallons of domestic wastewater to Coyote Creek. The Discharger indicated that the spill was the result of a surge in the collection system that discharged raw sewage from a previously unknown cleanout in the pipeline entering the Imhoff tank. Staff performed a site inspection on 18 December 2003 and observed that some cleanup efforts had taken place; however, due to equipment problems the cleanup had not been completed. Because the Discharger conducts only weekly inspections of the system, the spill could have been occurring for up to seven days before the Discharger realized the problem. Staff is awaiting the submittal of a detailed spill report. In addition, the Discharger has been discharging waste in excess of its permitted flows and had been requested to submit a Report of Waste (RWD) by 1 October 2003. The Discharger has not done so, and therefore on 22 December 2003, the Executive Officer required that the Discharger submit by 31 January 2004 the RWD pursuant to Section 13267 of the California Water Code. (GJC)

30. Lake County Sanitation District Southeast Regional Wastewater System, Lake County

Lake County Sanitation District reported six separate domestic sewage spills during the month of December 2003 within the Southeast Regional Wastewater Collection System. These spills ranged from 600 gallons to 444,000 gallons and totaled 628,330 gallons. With the exception of two of the spills, all entered surface water drainage courses that eventually drain into Clear Lake. The largest of these spills occurred on 14 December 2003 and was the result of broken force mains in the raw sewage collection system. On 17 December 2003, staff performed an inspection of the 14 December 2003 spill site and observed that sewage contamination signs were posted, that the contaminated area was disinfected, and that the Health Department had advised the residents to drink bottled water. Although the Discharger responds promptly and appropriately to the spills, this sewage collection system continues to have numerous spills. A total of 26 spills have been reported in the last year, the majority of which have entered surface waters. The Discharger has already been required, per a 11 April 2003 Notice of Violation, to submit a Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Response Plan that describes the actions designed to prevent, or minimize, the potential for sanitary sewer overflows. This report was received on 28 October 2003, and is currently under review by staff. (GJC)

31. Multiple Raw Sewage Spills By Tuolumne Utilities District, Tuolumne County

The District continues to report spills of raw sewage from its collection system. A spill on November 11 was estimated at 750 gallons, which may have reached the nearby Woods Creek. This spill occurred near the Jamestown WWTF and from the wastewater delivery pipeline, which transmits disinfected effluent to a storage reservoir. The spill resulted from a vehicular accident that damaged an air-relief valve. A spill on December 4, estimated at 13,000 gallons, was from a manhole adjacent to a dry seasonal drainage that drains to Curtis Creek. The spill was caused by large debris (rocks and root balls), which the District believes entered the collection line from an act of vandalism. The District vacuumed the spill and disinfected the immediate spill area around the manhole. The District will sample the seasonal drainage for bacteriological contamination once it is active and flowing. (HA)

32. Coarsegold Village WWTF, Madera County

The Discharger reported that a spill of undisinfected treated domestic wastewater occurred on 3 December, which was less than 9,500 gallons and was fully contained. The spill was caused by an electrical failure, which caused effluent pumps in a wet well to fail and effluent to overflow. The Discharger was able to vacuum about one third of the spill, while the remaining liquid infiltrated into the soil. The Discharger disinfected the spill area with a chlorine solution. (HA)

Thomas R. Pinkos Executive Officer 29/30 January 2004

Addenda that follow:

- 1. Personnel and Administration
- 2. Public Outreach
- 3. Completed Site Cleanups (UST)

Addendum 1

PERSONNEL AND ADMINISTRATION

PERSONNEL

Recruitment Efforts - Dec 2003 and Jan 2004

TOTAL POSITIONS	VACANCIES	GAINED	LOST
231.2	5	0	3

TRAINING

Staff Classes Given	NO. ATTENDED	
Hazwopper Refresher Training	9	
Scientific Information	6	
Water Quality Goals	30	

Training Attended

On 13 January Tom Pinkos and Ton Vorster attended "The Art and Science of Leadership" by UC Davis Extension as part of the State Board Water Training Academy.

BUDGET UPDATE

FY 03/04

Based on the November expenditure data we are on target to expend 99.6% of our personal services budget. In a similar manner the operating and expense portion of our budget is projected to be 100% expended. Most of our lab and student contract monies have been encumbered for the year. We are continuing to process contracts for the CAA project funding (\$3.3 million) which impacts our contracts line item. We are monitoring our expenditures by fund to assure that we do not overspend any fund source.

Personal Services Budget \$18,461,307	Expended YTD \$7,741,761	Percent Expended 42%
Operating Expense Budget \$6,882,373	Expended YTD \$3,211,852	Percent Expended 47%

FY 04/05

The Governor has proposed that the General Fund portion of the Water Board's budget be cut by \$5.3 million (Total Water Board General Fund remaining is approx \$27.5 million). At this time the proposed impact to Region 5 is estimated to be less than \$100,000, but we have yet to receive a final breakdown from State Board. The legislature will be reviewing and discussing the Governor's proposal between now and July when the budget will be approved.

FACILITY UPDATE

Our three separate offices in Sacramento, including our offsite warehouse, were moved into our new facility over the weekend of December 13, and great appreciation is due all staff - including IT staff from the State Board - who worked above and beyond the call to accomplish a successful transition, notably the IT and Admin and field staff who helped move computers, equipment, boats and vehicles, and unload file carts - a Herculean task extremely well done. Although we have

been working with the building manager to solve some initial minor problems with the security system, the heating and air conditioning, and ants, staff is in general pleased with the new facilities. We have formed a building committee to address employee concerns and to develop procedures for managing day-to-day operations.

Addendum 2

PUBLIC OUTREACH

On 10 November, Shelton Gray attended the regular Oil and Gas Workgroup meeting in Bakersfield at the BLM office. Thirty-five attendees were present representing the oil and gas industry, State and Federal agencies, consultants, and industry trade organizations. The O&G Workgroup is a collaborative partnership between Federal and State agencies, petroleum industry associations, and both major and independent oil companies. For the past 11 years, the Work Group has successfully served as an open forum to increase cooperation, share information and resolve difficult issues. Agenda topics at the meeting ranged from CEQA/endangered species issues, safety during site inspections, and water quality concerns to SWRCB annual fees. BLM staff described the upcoming Joint Ventures Partners in Stewardship conference sponsored by the 7 federal land management agencies. This conference will bring together more than 2,000 participants representing state, federal and local governments, business, educational and scientific groups to discuss shared leadership models. The O&G Workgroup model will be presented by the BLM as their conference topic.

On 13 November, Rich Muhl participated in a SWPPP training class for municipal staff in the City of Roseville. The class was designed to train storm water inspectors and covered sampling and analysis for non-visible pollutants, good housekeeping issues, and selection and installation of BMPs on construction sites.

On 13 November, in a public meeting arranged by John Taylor Fertilizers (JTF), Amy Terrell presented a conceptual model and the investigative and remedial actions JTF has completed at its Yuba City facility to identify the extent and potential remediation technologies for a release of 1,2 dichloropropane and 1,2,3-trichloropropane.

On 17 November, at a meeting of the Rural Lincoln Municipal Advisory Council, Amy Terrell presented the extent of perchlorate pollution identified at the Alpha Explosives facility in Lincoln and the steps Alpha is taking to remediate the pollution.

On 17 November, Karen Larsen attended the Sacramento River Watershed Program (SRWP) Grants Subcommittee meeting. The group discussed the schedule for Phases I through VIII of the program and the draft budget and workplan for Phase IX, which is slated to begin in February 2004.

On 18 November, Jerry Bruns, Les Grober, Patrick Morris, and Joe Karkoski met with U.S. EPA and Tetra Tech to discuss the TMDL program. The discussion focused on the status of TMDL projects and areas in which Tetra Tech could best provide assistance.

On 18 November, Rich Muhl presented a SWPPP training class to 50 contractors and engineers in Calaveras County. The class held in the City of Murphys covered SWPPP requirements, common storm water management problems, storm water BMPs, and Regional Board expectations.

On 19 November, Tom Pinkos, Shakoora Azimi-Gaylon, Karen Larsen, and Michelle McGraw attended the SRWP General Stakeholder's meeting in Chico. The meeting included a panel discussion on the conditional waiver for irrigated agriculture. Tom and Shakoora participated in the panel.

On 20 November, Dannas Berchtold attended a meeting of the Placer Regional Storm Water Coordination Group. The meeting focused on the implementation of post construction treatment controls as required by the Phase II General Permit for small MS4s.

On 20 November, Joe Karkoski, Pam Buford, and Dennis Heiman met with U.S. EPA to discuss the 2004 303(d) List Update. U.S. EPA will take the lead in compiling and organizing data/information and Regional Board staff will identify information sources.

- On 25 November, Rich Muhl presented a field-training class for 80 superintendents and subcontractors from Dunmore Homes. The training class held in the City of Livingston covered installation and inspection of BMPs, subcontractor responsibilities, and general storm water rules and regulations.
- On 25 November, Mary Menconi, gave a presentation on agricultural practices to reduce pesticide runoff to the California Association of Professional Crop Consultants in Colusa as part of the outreach efforts for implementation of the Sacramento-Feather River Diazinon Basin Plan Amendment.
- On 1 December, Dennis Heiman met with the Sierra Valley RCD to discuss the Agricultural Discharge Waiver Program and the RCD's grant for conduct of a watershed assessment, and also attended the monthly meeting of the Feather River CRM Management Committee.
- On 2 December, Karen Larsen attended the California Bay Delta Authority (CBDA) Drinking Water Program Strategic Planning and Performance Measures workshop. The purpose of the meeting was to initiate the planning effort for the program and to begin identifying performance measures designed to identify program success.
- On 2-3 December, Robert Holmes attended and participated at the Annual Meeting of the California Aquatic Bioassessment Workgroup (CABW) meeting at the CalEPA building. The purpose of the meeting included a session on establishing tiered aquatic life beneficial uses in California.
- On 2 December, Kelly Briggs attended an NRCS Pest Management Workgroup meeting in Davis.
- On 3 December, Mary Menconi, gave a presentation on agricultural practices to reduce pesticide runoff to the Pesticide Applicators' Professional Association in Sacramento as part of the outreach efforts for implementation of the Sacramento-Feather River Diazinon Basin Plan Amendment.
- On 3 December, Dennis Heiman attended the monthly Board of Trustees meeting of the Sacramento River Watershed Program.
- On 4 December, Rich Muhl, Jacque Kelley and Dannas Berchtold attended a PICC meeting in Sacramento, to answer questions from representatives of Sacramento area municipalities regarding the implementation of Phase II storm water construction oversight programs.
- On 4 December, Bill Croyle and Kelly Briggs attended the Glenn County Annual Grower Meeting sponsored by the Glenn County Agricultural Commission. Staff gave a presentation on the irrigated lands conditional waivers.
- On 4 December, Mary Menconi, gave a presentation the current status of Region 5 pesticide TMDLs in Ord Bend to the Glenn County Surface Water Program at the Agricultural Commissioner's meeting
- On 4 December, Jo Anne Kipps presented an overview of water quality regulatory issues relating to wine production at the 2003 Central California Insights Program sponsored by the California Association of WineGrape Growers and the Wine Industry Symposium Group. The program, held in Fresno, was attended by up to 200 Central California wine grape growers and wine manufacturers. Other represented agencies included the California Air Resources Board. (JLK)
- On 4 December, Beth Doolittle-Norby attended the monthly meeting of the Bear Creek Watershed Group in Shingletown, Shasta County.
- On 4 December Annee Ferranti presented an overview of the Irrigated Lands Waiver at the University of California Extension Vegetable Crops Conference in Davis. Approximately 45-55 farm advisors and continuing education specialists were in attendance.
- On 5 December, Beth Doolittle-Norby attended the monthly meeting of the Lands Committee of the Shasta Land Trust in Redding, Shasta County.
- On 8 December, Karen Larsen attended the Central Valley Drinking Water Policy Workgroup meeting. The group reviewed the draft Regional Board resolution in support of policy development and discussed the process for gaining stakeholder support for the resolution.

On 8 December, Richard McHenry and Melissa Hall of the NPDES staff attended a public meeting for the Cascade Shores Wastewater Treatment Plant in Nevada County. The discussion primarily focused on the costs associated with operations and compliance with their NPDES permit.

On 9 December, Karen Larsen attended the SRWP Monitoring and Toxics joint Subcommittee meeting. Mike Johnson from UC Davis gave a presentation on the monitoring he has conducted for the Regional Board in support of the TMDL and agricultural waiver programs.

On 9 December, Kelly Briggs attended the Colusa County Annual Grower Meeting sponsored by the Colusa County Agricultural Commission. Staff gave a presentation on the irrigated lands conditional waivers.

On 10 December, Pete Osmolovsky presented an overview of the Irrigated Lands Waiver at the Central Sierra Watershed Committee Meeting in Oakhurst.

On 11 December, Dennis Heiman and Beth Doolittle-Norby attended the monthly Board meeting of the Cow Creek Watershed Management Group.

On 11 December, Karen Larsen facilitated the SRWP Public Outreach and Education Subcommittee meeting. The group discussed updating the program brochure, the website redesign, and content for the next newsletter. The group also heard a presentation on the Watershed Information Model (WIM) developed by the Western Shasta Resources Conservation District. The WIM is a GIS based, interactive website designed to compile data and educational information about 18 sub-watersheds in the northern Sacramento River Watershed.

On 12 December, Mark Gowdy attended a meeting of the Dissolved Oxygen TMDL Steering Committee. The future leadership and organization of the Steering Committee was discussed. Also, an overview was provided of the Basin Plan amendment process underway for the San Joaquin River low dissolved oxygen TMDL and program of implementation.

On 15 December, Guy Chetelat attended the Glenn County Resource Conservation District meeting in Willows, Glenn County.

On 16 December, Dennis Heiman met with the Central Modoc RCD to review status of the their watershed grant contracts and projects.

On 16 December, Pam Buford attended the monthly Westside Resource Conservation District meeting to hear status reports of the 3 Coordinated Resource Management Programs under its oversite.

On 16 December, Patrick Morris attended a meeting of the Abandoned Mine Lands Agency Group. The USFS presented their remediation of the Sailor Flat mine, which consisted of the removal of a mine drain tunnel that contained mercury and grading the site to control surface water runoff.

On 17 December, Guy Chetelat attended the Butte County Resource Conservation District meeting in Oroville, Butte County.

On 17 December, Janis Cooke and Patrick Morris presented the Cache Creek, Bear Creek, and Harley Gulch draft mercury TMDL to the Delta Tributaries Mercury Council meeting in Woodland. The meeting also had presentations on national and local mercury bioaccumulation in fish.

On 17 December, Pete Osmolovsky presented an overview of the Irrigated Lands Waiver at the Almond Pest Management Alliance in Modesto.

On 18 and 19 December, Bill Croyle and Kelly Briggs attended the 2003 California Alfalfa and Forage Symposium in Monterey. Staff gave a presentation on the irrigated lands conditional waivers.

On 18 December, Diane Beaulaurier and Les Grober of the SJR TMDL Unit participated in the Pest Science Conference 2003 at UC Davis. Les gave a presentation on TMDLs in the Central Valley, and Diane presented an update of monitoring results and the Basin Plan Amendment for the San Joaquin Rive Diazinon and Chlorpyrifos Pesticide TMDL. This conference was attended by 125 people, including Pest Control Advisors, County Ag Commissioners, staff from UC Davis, irrigation districts, and state and local government agencies.

On 19 December, Michelle McGraw visited the Yuba River Watershed Council office and the South Yuba River Citizens League (SYRCL) offices in Nevada City to help with grant contract preparations.

On 22 December, Tom Pinkos, Bill Croyle, Kelly Briggs, Bill Marshall and Shakoora Azimi-Gaylon participated in the Interagency Coordinating Committee (IACC) Agricultural Subcommittee meeting.

On 7 January, Dennis Heiman attended the monthly Board of Trustees meeting of the Sacramento River Watershed Program.

On 8 January, Guy Chetelat attended a meeting of the Deer Creek Watershed Conservancy in Vina, Tehama County.

On 7, 8, 13 and 15 January, Jon Marshack of the Program Support Unit provided classes in water quality standards and their implementation for State and Regional Board staff at Regional Board offices in Sacramento, Fresno, Riverside, and Redding, respectively. The classes are based on the Central Valley Region staff report, A Compilation of Water Quality Goals, and are designed to provide training on the statutes, regulations, plans and policies that affect allowable concentrations of pollutants in water. It also familiarizes staff with the intranet-based Water Quality Goals database and limit-selection algorithms and how these tools may be used to interpret narrative water quality standards as part of our day-to-day water quality assessment and regulatory functions.

On 8 January, Mary Menconi, gave a presentation on agricultural practices to reduce pesticide runoff to the Pesticide Applicators' Professional Association in Marysville as part of the outreach efforts for implementation of the Sacramento-Feather River Diazinon Basin Plan Amendment.

On 8 January, Beth Doolittle-Norby attended a meeting of the Sulphur Creek CRMP in Redding.

On 12 January, Guy Chetelat attended a meeting of the Big Chico Creek Watershed Alliance in Chico.

On 13 January, Beth Doolittle-Norby attended a meeting of the Shasta West Watershed Technical Advisory Committee in Anderson, Shasta County.

Addendum to EO Report for January 2004

29 January 2004

To: Regional Board Members

From: Tom Pinkos

Re: Questions in **bold** from Board Member Al Brizard:

item:

10 (MG) Water Quality Impacts of Proposed Changes to Central Valley Water Operations –

current status of Machado bill (SB 2)

Staff looked on the Legislative web site and found no reference to this bill or any Machado bill on the subject. We don't know whether the bill actually never was submitted to the Legislature or has been withdrawn. Machado's bill was mentioned last week at a CalFED Drinking Water Subcommittee meeting as still being a concern and a driving force to get agencies thinking about water quality issues, so even if it doesn't exist as formal proposed legislation, it is still driving water quality consideration.

Department of Water Resources (DWR) and United State Bureau of Reclamation (USBR), operators of the State Water Project (SWP) and Central Valley Project (CVP), working together under the California Bay-Delta Authority (CBDA) umbrella, are the focus of the proposed legislation, which would require them to develop a plan of action addressing numerous water quality concerns in the San Joaquin River. Regional Board staff has been providing input to their planning process.

Development of the plan is ongoing and positive progress is being made. Regional Board staff, however, still has some significant concerns about potential impacts to dissolved oxygen and a number of other water quality related issues.

Decisions will be made in the next week by DWR and USBR about the adequacy of their plan and whether to forward it to the CBDA board for consideration at their February 11th meeting. Senator Machado is one of the members of the CBDA board and will presumably provide comments to the implementing agencies.

12 thru 17 - CEQA participation.

Do our comments ever carry any weight?

Often they carry considerable weight. CEQA comments can result in major modification of some projects and redrafting of the CEQA document. In some cases the Lead Agency seems to ignore our comments and proceed with CEQA document and project approval, leaving us with problems to deal with in permitting. Overall, it is important for us to get our comments in during the CEQA review because it either helps fix the problems early in the process or at least puts the project proponent on notice that there are unresolved water quality issues.

Responsible agencies should review and incorporate our comments on CEQA documents, and most do. However, if our concerns are not adequately addressed, then we usually add additional restrictions in the waste discharge requirements.

Also what is status of State Boards study of the septic tank issue?

Pending budgetary considerations, State Board is now proposing a "performance based" approach to regulating septic tanks. Under this approach, there would be no minimum criteria for soils (i.e., depth), just a requirement for advanced treatment of all septic tank effluent. Where groundwater is close to the surface, the effluent will be required to be disinfected. Thus, most homeowners will be operating little sewage treatment facilities without day-to-day maintenance. Under the proposal, they could also discharge in areas where we would not permit a POTW (who has full time operations staff) to discharge. This is a very risky approach that would allow development of virtually any parcel. Staff is working on a legal response to State Board.

19 (KDL) Runoff and Recycled Wastewater - Will we be modifying our stand on this issue?

There are two major aspects of this issue.

- "Incidental runoff", such as overspray from sprinklers, is something our permits say is "ok", as long as it is truly incidental (which is subject to interpretation), so we don't need to change anything on that.
- The contentious issue for us is winter overflows from ponds containing recycled water. Based on SWRCB contacts with USEPA, we have drafted an amendment to the Roseville Reclamation Permit which would allow Roseville on an interim basis to stop using recycled water and start using potable water in the late Fall, and allow the pond water (which would still contain a few percent recycled water) to overflow to surface waters without an NPDES Permit. The draft amendment is currently undergoing internal review. Final resolution will await SWRCB guidance over the next few months.

24 (WSW) Wineries, Summary of Recent Activities – Could we expand on this issue a little more?

Staff's written comments to the Wine Institute are available to the Board members; please let me know if you would like a copy.. At a staff level, we are not aware of any response to these comments. However, the Wine Institute has had one meeting, and has scheduled a second meeting, with me and Dr. Longley. The Sacramento office staff is continuing to review groundwater monitoring data submitted by wineries, as staff time permits. To date, Delicato Vineyards and The Wine Group have submitted workplans for additional study and/or BPTC measures to reduce their groundwater degradation, and the Robert Mondavi Winery has been required to submit a workplan. Canangaiguia Turner Road has been ordered to install more groundwater monitoring wells. Sutter Home Lodi has submitted an evaluation of its groundwater data. Barrel Ten Quarter Circle in Escalon was issued a C&D Order for its groundwater degradation. Bear Creek Winery has recently installed additional wells and lysimeters. Ironstone Vineyards is preparing an evaluation of its system.

29 (GJC) Weimar Institute, Placer County – Has the RWD been submitted yet?
No